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REMARKS

Claims 1-23, 25-33, and 40 are pending herein.

1. Claim 8 was rejected under 35 USC 112, second paragraph. The PTO alleges claim 8 is not further limiting. Claim 7, from which claim 8 depends, requires the substrate is translated in a reel-to-reel process. The operation may be carried out in a stop-and-go (stepping) process, or by continuous translation (see paragraph [0046]). Claim 8 provides the further limitation that the operation is carried out by continuous translation, without stopping as in a stepping process. Applicants respectfully request withdrawal of the 35 USC 112, second paragraph rejection.

2. Claims 1-14, 22-24, 27-33, 39 and 40 were rejected under 35 USC 103(a) as being unpatentable over Ignatiev et al. alone or R. Nenetschek et al. "Continuous Coated Conductor Fabrication by Evaporation" in combination with Ignatiev et al. further in combination with JP 02-118075 and JP 02-118061. This rejection is respectfully traversed for the following reasons.

The presently claimed invention is directed towards a method of forming a superconductive device, particularly calling for plasma treating a metal alloy substrate tape and applying a buffer layer to overlie the substrate tape.

The PTO has apparently relied upon Ignatiev et al. and Nenetschek et al. to provide the main features of the claimed invention. However, Ignatiev et al. and Nenetschek et al. fail to teach utilizing plasma pretreatment. The PTO apparently relied upon JP 02-118075 and JP 02-118061 to teach plasma treating. JP 02-118075 and JP 02-118061 disclose removing airborne contaminants, i.e., water and dust, from the surface of a superconducting layer by plasma treating.

The PTO references a host of substitute preparation processes, such as vapor degreasers, mechanical degreasers, ultrasound, polishing, and others. Applicants have discovered that indeed plasma treatment of a long length metal alloy substrate is an essential and critical feature to the preparation of a metal alloy substrate for subsequent deposition. Turning once again to the prior art, the references fail to teach plasma treating a metal alloy substrate, and on the other hand teach plasma treating an oxide superconductor layer. This is no suggestion of using such

treatment on the metal alloy substrate. In this regard, while the PTO references increased adhesion, there is no support from the references for such a motivation to combine, since the art correlates adhesion to the superconductor/superconductor interface, not a metal alloy substrate/buffer layer interface. In this regard, it is not surprising to the Applicants that the best prior art found by the PTO does not teach metal alloy substrate plasma treating, because Applicants were the first to discover the significance of plasma treatment on such substrates.

For at least the forgoing reasons, Applicants respectfully request withdrawal of the 35 USC 103(a) rejection.

3. Claims 25 and 26 were rejected under 35 USC 103(a) as being unpatentable over Ignatiev et al. alone or R. Nenetschek et al. in combination with Ignatiev et al. further in combination with JP 02-118075 and JP 02-118061, still further in combination with Goyal et al. Applicants submit that Claims 25 and 26 depend from allowable independent Claim 1 and are therefore allowable. As such, Applications respectfully request withdrawal of the 35 USC 103(a) rejection.

4. Claims 15-21 are rejected under 35 USC 103(a) s being unpatentable over Ignatiev et al. alone or R. Nenetschek et al. in combination with Ignatiev et al. further in combination with JP 02-118075 and JP 02-118061, still further in combination with Glowacki et al. Applicants submit that Claims 15-21 depend from allowable independent Claim 1 and are therefore allowable. As such, Applications respectfully request withdrawal of the 35 USC 103(a) rejection.


Applicants respectfully submit that the present application is now in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims.

Should the Examiner deem that any further action by the Applicants would be desirable for placing this application in even better condition for issue, the Examiner is requested to telephone Applicants' undersigned representative at the number listed below.

The Commissioner is hereby authorized to charge any fees, which may be required, or credit any overpayment, to Deposit Account Number 50-3797.

Respectfully submitted,

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Date


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